

# ENGINEERING CHANGE NOTICE

<b>DART AEROSPACE LTD</b>		Amendment Design Review (ADR) Yes/No:		ECN #: <b>841</b>
Date: 06.08.15		ADR Date: 06.03.28		
Job No: 00056		Created By: <i>CP</i>	Checked By: <i>[Signature]</i>	
Product No: D206-667, D412-664, D350-748		Approved By:	Approved By:	
Product Name: Crosstube Installations		(Proj. Manager)	(Management if reqd)	

**Documents Affected:**

Release dwg M-MS21920-XX Rev.A

#	Engineering Actions	Yes	No	Responsible	To happen by:	Complete
1	Required Documents/Drawings Under Review?		X			
2	Update Blue/Pink Folder/Electronic File		X			
3	Update DSI Folder/Electronic File		X			
4	Update D-Part Master Binder	X		KJ	06.08.24	06.08.24 <i>[Signature]</i>
5	Update Grey Project Binder	X		CP	06.08.24	06.08.24 <i>[Signature]</i>
6	Update DEO/DSI Binder		X			
7	Update Master Document List (MDL)		X			
8	Update Document Record (DR)		X			
9	Update Change Record Form		X			
10	Move Electronic File	X		KJ	06.08.24	06.08.24 <i>[Signature]</i>
11	Notify TC of Change		X			
12	Notify FAA of Change		X			
13	Update QSI 021 (TC/FAA STC)		X			
14	Update QSI 036 (K-Kits)		X			
15	Update Accpac Database		X			
16	Update Access Database		X			
17	Verification ARC		X			
18	Update STC Approval List		X			
19	Update Product Development Summary		X			
20	Create/Update COSS (Estimate/BOM)		X			
21	Create/Update PPP's		X			
22	Update Paperwork Kits in Production		X			
23	Update Paperwork Kits in Stock		X			
24	Red Tag Stock with old CHG #		X			
25	Rework/Scrap Current Production		X			
26	Rework/Scrap Kits in Stock?		X			
27	Update Qpulse/Laminated Dwgs		X			
28	Create/Update Controlled PDF Files	X		KJ	06.08.24	06.08.24 <i>[Signature]</i>
29	Create/Update FAI sheets		X			
30	Create/Update CNC Programs		X			
31	Create/Update Tooling		X			
32	MPP required?		X			
33	Notify Previous Customers		X			
34	Notify Eurocopter France		X			
35						
36						

**Description / Action:**

-Dwg M-MS21920-XX Rev.A is a spec control dwg requiring the MS21920-XX clamps we purchase to be ALL STAINLESS.  
 - this issue has already been addressed, the p/o for clamps now quote the required spec and say "ALL SS"  
 -old "cad plated" stock has already been segregated  
 -there is no need to stock parts as "M-MS21920", the dwg simply requires the p/o to state all stainless steel per the latest spec  
 -this spec will be added to crosstube dwgs as they are updated.  
 -make sure receivers know to check for all SS-clamps. Suppliers sometimes send old-style CAD plated clamps regardless. CAD plated clamps will have a gold-colored threaded shaft and nut.

ECN Complete: *[Signature]*

Date: 06.09.15



DESIGN CP	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. M-MS21920-XX	REV. A SHEET 1 OF 1
DATE 06.03.16		TITLE CLAMP, HOSE, FLAT BAND	SCALE NTS
A	06.03.16	NEW ISSUE	

PURCHASE MATERIAL: CLAMP, HOSE, FLAT BAND, 500 deg F

DIMENSIONS PER DETAIL SPECIFICATION:  
MIL-DTL-8783/1 DATED 6 JULY 1998

MATERIAL & REQUIREMENTS PER DETAIL SPECIFICATION:  
MIL-DTL-8783C

NOTE: ALL PARTS OF THE CLAMP MUST BE CORROSION-RESISTANT  
STEEL. THEREFORE CLAMPS PER SPECIFICATION MS21920C  
OR EARLIER REVISION ARE \*NOT\* ACCEPTABLE.

PART NUMBER: M-MS21920-XX

WHERE "MS21920-XX" = PURCHASED PART NUMBER  
WITH "XX" = SPECIFIC DASH NUMBER PER MIL-DTL-8783/1

EXAMPLE: PURCHASED PART "MS21920-20" = DART SPECIFICATION "M-MS21920-20"

RELEASED

06.08.14 [Signature]

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# AMENDMENT DESIGN REVIEW (ADPR) REFERENCE ONLY

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Part/Installation No.: DZ06667 & D412-LH Rev.     

Design Review No.: N/A Date: 06.03.28

Project 'P' Number: 661

Project Description/Title: CROSSSTUBES

Eng. Project Manager: Chris Provencal

Persons Present	Title	Initial
SERGE SHABAZIAN	Design Manager	
CHRIS PROVENCAL	Engineering Project Manager	CP
	Marketing Manager	
	Manufacturing Manager	
	Quality Manager	
DAVID SHEPHERD	CHIEF ENGINEER	DS
BILL BECKETT	GENERAL MANAGER	

## Comments

- Some MS21920 clamps we purchase are all stainless while some have a mix of stainless / regular steel.
- All stainless is preferred
- Spec MS21920 Rev.C allows mix of steel, MIL-DTL-8783C requires all SS
- Need to ensure all future clamps are SS; create M-MS21920-xx dwg.

Key Tasks (check or N/A)	Check	Responsible	Completion Date
Review Outstanding TSR/NCR/CAR/PAR	N/A		
Fill out Criteria/Constraints Form - Inputs	N/A		
Fill out Project Evaluation Form	N/A		
D-Part creation/revision	✓	CP	
Get Manufacturing Input	✓	CP	06.03.28
First Article Inspection	N/A		
Fit and Function Test	N/A		
Structural Test	N/A		
Reports (Compliance, Loads, Stress, Conformity)	N/A		
Check Drawings against all QSIs	N/A		
Review Criteria/Constraints Form	✓	CP	06.03.28
Revision to existing approval	N/A		
Close Amendment Project	N/A		
	✓	CP	

## Conclusion:

Create dwg M-MS21920-xx Rev.A and ensure production is purchasing all MS21920 clamps to MIL-DTL-8783C